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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,325

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Stephan Courcambeck

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EXAMINER

YALEW, FIKREMARIAM A

ART UNIT

PAPER NUMBER

2436

MAIL DATE

DELIVERY MODE

12/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/817,325	Applicant(s) COURCAMBECK ET AL.	
	Examiner Fikremariam Yalew	Art Unit 2436	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 18-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 18-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/05/2009 has been entered.
2. Claims 1, 4 and 18 have been amended. Claims 6-17 are canceled. Claims 1-5, 18-24 are pending.

Response to Arguments

3. Applicant's arguments with respect to claims 1-5 and 18-24 have been considered but are not persuasive.

The applicant argued that the prior art does not teach or suggest "calculating, on each task change of the CPU, a signature". The examiner disagree and points out that the prior art teach calculating, on each task change between a first program module and a second program module of the CPU, a signature (See col.7 line 67 through col.8 line 3 and col.14 lines 18-24 and **claims 1-2**(i.e., execution-identifying signature and **first & second program module having distinct execution-identifying signature**)). The applicant also argued that the prior art does not suggest or teach "multitask CPU". The examiner disagree and points out the prior art teach multitask CPU (See col.19 line 4-36 and See col.7 line 67 through col.8 line 3 and col.14 lines 18-24(i.e., multiple execution of an application)). The examiner also points out that since the prior art

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teaches multiple execution of an application, that shows CPU does multiple things on the same time and put CPU in multitask category while doing that it changes task too.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a background program module has not been tampered with, each time a program module transitions to become a foreground application in which the CPU is executing instructions from said application, at least part of the application is used to generate a signature and the signature may be compared to a stored signature that was generated and stored in a memory when the application transitioned to the background and if the signatures match, then this match may be interpreted to mean that the program module now transitioning back to the foreground has not been changed or modified) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993)

The applicant also argued that the prior art does not teach a processor of multitask execution of several programs, exploiting a table of correspondence between virtual addresses of the lines of the different programs and physical addresses of these lines in at least one memory, each correspondence being associated with an identifier of the involved program, comprising means for calculating a current signature based on at least part of the program lines in said memory, and means for comparing this signature with the identifier of the program stored in the correspondence table. The examiner disagree and points out that the prior art teaches a processor of multitask execution of several programs, exploiting a table of correspondence between virtual addresses of the lines of the different programs and physical addresses of these lines in at least

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one memory, each correspondence being associated with an identifier of the involved program, comprising means for calculating a current signature based on at least part of the program lines in said memory (See col.8 lines 9-24, col. 10 lines 11-15 and col. 14 lines 18-24(i.e., generates an integrity signature based upon the execution trace of the set of the instructions when the set is given one or more specified parameters)), and means for comparing this signature with the identifier of the program stored in the correspondence table(See col. 7 line 67 through col. 8 line 3 and col. 14 lines 18-24(i.e., comparing signatures)).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-5 and 18-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Sinha et al (hereinafter referred as Sinha) US Patent No 7,346,780 B2.

6. As per claim 1: Sinha discloses a method for authorizing an access to a table of address correspondence between a multitask CPU and at least one memory containing several programs, comprising calculating, on each task change between a first program module and a second program module of the CPU (See col. 7 line 67 through col. 8 line 3 and col. 14 lines 18-24 and **claims 1-2 (i.e., execution identifying and first & second program module having distinct execution-identifying signature))**), a signature of at least part of the program instruction lines,

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and each signature being associated with a program identifier (See col. 4 lines 28-34 and col. 13 lines 33-39(i.e., generate unique identifier for program module));checking the conformity of this signature with a signature recorded upon previous execution of the involved program(See col. 10 lines 11-15 and col. 14 lines 18-24(i.e., comparing integrity signatures)).

7. As per claim 2: Sinha discloses the method wherein said signature is calculated by the implementation of a Hash function (See col. 11 lines 50-66).

8. As per claim 3: Sinha discloses the method wherein said memory is a RAM in which are loaded program lines from a mass storage (See col. 19 lines 50-59 and col. 20 lines 24-34).

9. As per claim 4: Sinha discloses a processor of multitask execution of several programs, exploiting a table of correspondence between virtual addresses of the lines of the different programs and physical addresses of these lines in at least one memory, each correspondence being associated with an identifier of the involved program when executed, comprising means for calculating a current signature based on at least part of the program lines in said memory (See col. 10 lines 11-15 and col. 14 lines 18-24), and means for comparing this signature with the identifier of the program stored in the correspondence table(See col. 7 line 67 through col. 8 line 3 and col. 14 lines 18-24).

10. As per claim 5: Sinha discloses the processor wherein the identity of the signature and of the program identifier allows the CPU to execute the instruction of the involved program (See col. 4 lines 28-34 and col.13 lines 33-39).

11. As per claim 18: Sinha discloses a method comprising: executing a plurality of programs, each having a unique signature at a CPU, wherein each program includes currently-executing tasks that change at the CPU(See col. 4 lines 28-34 and col. 13 lines 33-39(i.e., generate unique

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identifier for program module)); calculating, on each task change, a new signature of at least part of program instruction lines for the program associated with the task(See col. 7 line 67 through col. 8 line 3 and col. 14 lines 18-24(i.e., execution identifying)); and checking the conformity of the new signature with a unique signature(See col. 10 lines 11-15 and col. 14 lines 18-24(i.e., comparing integrity signatures)).

12. As per claim 19: Sinha discloses the method wherein each signature is calculated by the implementation of a hash function (See col. 11 lines 50-66).

13. As per claim 20: Sinha discloses the method further comprising suspending execution of a program if the new signature and the unique signature do not conform(See col. 10 lines 11-15 and col. 14 lines 18-24).

14. As per claim 21: Sinha discloses the method further comprising storing the new signature in a memory (See col. 13 lines 33-39 and col. 20 lines 24-34); and checking the conformity of a next new signature with the stored new signature at the next task change associated with the program (See col. 10 lines 11-15 and col. 14 lines 18-24).

15. As per claim 22: Sinha discloses the method further comprising establishing the unique signature when the associated program is first executed(See col. 13 lines 33-39).

16. As per claim 23: Sinha discloses the method further comprising storing the unique signature in a memory (See col. 13 lines 33-39 and col. 20 lines 24-34); and checking the conformity of a next new signature with the stored unique signature at the next task change associated with the program (See col. 10 lines 11-15 and col. 14 lines 18-24).

17. As per claim 24: Sinha discloses the method further comprising storing the new signature in a memory in response to a first task change (See col. 13 lines 33-39 and col. 20 lines 24-34);

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and checking the conformity of the new signature with the unique signature in response to a second task change (See col. 10 lines 11-15 and col. 14 lines 18-24).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fikremariam Yalew whose telephone number is 5712723852. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moazzami Nasser can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Fikremariam Yalew/
Examiner, Art Unit 2436
12/2/2009

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/Eleni A Shiferaw/

Primary Examiner, Art Unit 2436